

MIAT/SIAT-31 Series MIAR/SIAR-31 Series

FM Video/Audio Transmitter/Receivers 850 nm/1310-1550 nm

○ Features & Benefits

- FM Video/Unbalanced Stereo Audio Transmission Over Optical Fiber
- Meets and or exceeds RS-250C Medium Haul Specifications
- Single-mode or Multimode Versions Available
- Audio Bandwidth 50 Hz-20 KHz
- 0-15 dB Optical Loss Range with Multimode Fiber Using 1310nm Optics
- 0-23 dB Optical Loss Range with Single-Mode Fiber Using 1310nm or 1550nm
- MIAT/MIAR fits in our MIRC-12 or FIRC-3 Chassis¹
- SIAT/SIAR Models Designed For Stand Alone Applications



MIAT/MIAR
Sample Rack
Mount



MIAR/SIAR
Sample Stand Alone

The MIAT/SIAT-M3T/M8T/53T/55T transmitters, used with the MIAR/SIAR-M8R/U4T-3 receivers, provide a high-quality system for transferring baseband video and stereo audio signals with complete EMI immunity via fiber optics. The transmitters accept one video and two unbalanced (600 Ω or 10 kΩ) audio inputs and combine them for transmission over a single optical fiber. The receivers accept the composite optical signal and convert it to a video and two unbalanced (600 Ω or 10 kΩ) audio outputs. This FM video/stereo audio fiber optic link offers near studio-quality performance in low-to-moderate optical loss applications. Single mode and multimode fiber models are available. Because of the FM technique employed, no user adjustments are required over the full optical loss range. While optimum performance is achieved with an RS-250 C video input and 1-Volt RMS audio inputs, the output level tracks the input level over the full optical loss range. Used with a good quality optical fiber (0.5 dB/km @ 1310nm & 1000 MHz/km), the multimode version will function over more than 15 km of fiber, and the single mode version will function over more than 70 km.

Specifications and Ordering Information are located on the following page.

Order From:



Toll Free: 800-423-2594
www.multicominc.com
multicom@multicominc.com

MIAT/SIAT-31 Series

MIAR/SIAR-31 Series

Retro Linx

FM Video/Audio Transmitter/Receivers 850 nm/1310-1550 nm

○ Specifications

Typical ALL MODELS

(Multimode & Single Mode)

Power Supply Voltage: +12 to +15 VDC
Power Supply Current: 500 mA
Required Fiber Bandwidth: 100 MHz
Video Bandwidth: 5 MHz
Video Low Frequency Response: 2 Hz
FM Carrier Frequency: 60 MHz
Video Input/Output Impedance: 75 Ohms
Differential Gain Error: 1.7 %
Differential Phase Error: 1.3 °
Input Signal Range: 1.0 Vsync-white
Video Channel Gain: 1.0 V/V
Audio Bandwidth (+1/-3 dB): 50 to 20,000 Hz
Audio Input Impedance: 600 Ohms/10KΩ Switchable
Audio Distortion: 1.5 %
Audio Channel Amplitude Matching: -1 to +1 dB
Audio Channel Crosstalk: -55 dB
Video I/O Levels: 1.0 V P-P
Audio I/O Levels: 1.0 V rms
Output I/O Levels: Input Level ±10 %
Minimum MTBF (Tx): 0.85 Million Hrs, 89 Yrs
Minimum MTBF (Rx): 0.35 Million Hrs, 40 Yrs

Environmental And Physical Characteristics

Operating Temperature Range: -20 to +70 °C
Storage Temperature Range: -20 to +70 °C
Humidity: 0 - 95 %
Weight: 10 oz
Physical Dimensions:
SIAT: 8.45 X 2.95 X 1.12 in, 215 X 75 X 28 mm
MIAT: 1.15 X 3.5 X 7.5 in, 29 X 89 X 191 mm

Connectors

Optical Output: ST™
Video Input: BNC Female
Audio Input: RCA Female
Power Supply
SIAT/SIAR: ACCS-PS-200 (BT Stock No. 7418)
MIAT/MIAR: MIPS-12C (BT Stock No. 7722C) and
MIRC-12V (BT Stock No. 7715)

MM 850nm

Optical Loss Range: 0 to 12 dB
Optical Output Power: -12 to 12.0 dBm
S/N (Rcvr Input = -19.5 dBm): 64 dB
S/N (Rcvr Input = -23.5 dBm): 58 dB
S/N (Rcvr Input = -25.0 dBm): 53 dB

MM 1310nm

Optical Loss Range: 0 to 15 dB
Optical Output Power: -15.0 dBm
S/N (Rcvr Input = -27 dBm): 64 dB
S/N (Rcvr Input = -30 dBm): 58 dB
S/N (Rcvr Input = -31 dBm): 53 dB

SM 1310nm

Operating Wavelength: 1310 nm
Optical Loss Range: 0 to 23 dB
Optical Output Power: -6.0 dBm
S/N (Rcvr Input = -27 dBm): 62 dB
S/N (Rcvr Input = -30 dBm): 58 dB
S/N (Rcvr Input = -31 dBm): 51 dB

SM 1550nm

Operating Wavelength: 1550 nm
Optical Loss Range: 23 dB
Optical Output Power: -6.0 dBm
S/N (Rcvr Input = -24 dBm): 62 dB
S/N (Rcvr Input = -28 dBm): 58 dB
S/N (Rcvr Input = -31 dBm): 51 dB

○ Ordering Information

Model	Stock No.	Description
MIAT-S5T-31	7473	Fiber Optic Transmitter, Video/Audio/Audio Single-mode, 1550 nm, ST Connector, 70 +km
MIAT-M3T-31	7462	Fiber Optic Transmitter, Video/Audio/Audio Multimode, 1310 nm, ST Connector, 15 +km
MIAT-M8T-31	7461	Fiber Optic Transmitter, Video/Audio/Audio Multimode, 850 nm, ST Connector, 1.5 km
MIAT-S3T-31	7463	Fiber Optic Transmitter, Video/Audio/Audio Single-mode, 1310 nm, ST Connector, 50 +km
MIAR-U8T-31	7471	Fiber Optic Receiver, Video/Audio/Audio Multimode, 850 nm, ST Connector
MIAR-U4T-31	7472	Fiber Optic Receiver, Video/Audio/Audio Single-mode or Multimode, 1310/1550 nm, ST Connector
SIAT-S5T-31	7473 S	Fiber Optic Transmitter, Video/Audio/Audio Single-mode, 1550 nm, ST Connector, 70 +km
SIAT-S3T-31	7463 S	Fiber Optic Transmitter, Video/Audio/Audio Single-mode, 1310 nm, ST Connector, 50 +km
SIAR-U8T-31	7471 S	Fiber Optic Receiver, Video/Audio/Audio Multimode, 850 nm, ST Connector
SIAT-M3T-31	7462 S	Fiber Optic Transmitter, Video/Audio/Audio Multimode, 1310 nm, ST Connector, 15 +km
SIAT-M8T-31	7461 S	Fiber Optic Transmitter, Video/Audio/Audio Multimode, 850 nm, ST Connector, 1.5 km
SIAR-U4T-31	7472 S	Fiber Optic Receiver, Video/Audio/Audio Single-mode or Multimode, 1310/1550 nm, ST Connector

Available through

Multicom, Inc.

1076 Florida Central Parkway, Longwood, FL 32750

Ph: 407-331-7779 Toll Free: 800-423-2594 Fax: 407-339-0204

www.multicominc.com

multicom@multicominc.com